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Prekindergarten Programs in Urban Schools

Lawrence J. Schweinhart & Elizabeth Mazur

HIGH/SCOPE EARLY CHILDHOOD POLICY PAPERS

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High/Scope Educational Research Foundation

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Lawrence J. Schweinhart and David P. Weikart, Series Editors

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The High/Scope Educational Research Foundation is an independent, non-profit center for research, development, and training in education and human development, with primary emphasis on early childhood development programs. Begun by David P. Weikart in 1970, the Foundation in 1987 had a staff of 40 and an annual budget of $2 million from public and private sources.

The Council of the Great City Schools is a national association of the educational leaders of 38 large-city school districts. Founded in 1961, it conducts studies, coordinates projects, holds conferences, and implements other activities designed to improve education in these districts.

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Executive Summary

Since authoritative research has shown that good prekindergarten programs are an important step in preventing the harmful effects of poverty on the nation's children, the commitment of major urban school districts to prekindergarten programs is essential. In fact, according to a 28-school-district survey conducted by the High/Scope Educational Research Foundation and the Council of the Great City Schools, these districts are among the nation's largest providers of prekindergarten programs. The 28 districts reported serving 69,964 prekindergarten children in 1985–86, which is 23% of the number of children enrolled in their kindergarten classes, and the prospects of new state or district funds for prekindergarten programs appeared good or very good to respondents in over half of the school districts surveyed.

The Chicago and Los Angeles school districts each served over 10,000 prekindergarten children in 1985–86, more than any other school district in the United States. New York City, Philadelphia, and Detroit had the next largest enrollments for that year, each serving between 5,000 and 10,000 prekindergarten youngsters. When prekindergartners served are compared to kindergartners served, the Buffalo, NY, Milwaukee, WI, and Washington, DC, prekindergarten programs served the greatest *percentages*, each serving in prekindergarten more than 50% as many children as they enrolled in their kindergartens.

Altogether, the 28 school districts surveyed spent $136 million on prekindergarten programs in 1985–86, two fifths as much as they spent on kindergarten programs, with Buffalo, NY, Philadelphia, PA, and Rochester, NY, spending more on prekindergarten programs than they did on kindergartens. Since the prekindergarten children served by major urban school districts were those at special risk of school failure, it is fitting that the $2,248 cost per prekindergarten child was greater than the $1,571 cost per kindergarten child. However, the per-child cost for prekindergarten was only 58% of the overall per-student cost (K-12), which was $3,906. The federally originated Head Start and Chapter 1 programs operated by the 28 school districts surveyed served only 29% of prekindergarten enrollees, while the remaining children participating in public school programs were enrolled in state and locally originated programs. Overall, the federal, state, and local governments shared program costs almost equally for programs operated by the school districts. Note: The survey did not cover prekindergarten programs operated by private agencies or non-public-school community agencies.

Two thirds of these prekindergarten children served by public-school programs were in programs with an age-4 entry; a little over one fifth were in programs with age-3 entry; and one tenth were in programs with an earlier entry age. Seven tenths attended only part-day programs (2–3 hours), with the remainder attending for either the entire school day (5–6 hours) or the work day (8–9 hours). Half of the kindergarten children in these districts attended part of the day and half for the school day, with 4 out of 5 districts permitting after-school child care programs on school premises.

Prekindergarten teachers employed by school districts were on the same salary schedule as were elementary school teachers, except in Atlanta, GA, Long Beach, CA, Pittsburgh, PA, and some Los Angeles, CA, programs. Every school district required its prekindergarten teachers to have some type of certification — a teaching certificate in every district except Atlanta, which required them to have a Child Development Associate credential.

Prekindergarten programs averaged 10 children per adult, the maximum recommended for preschoolers by Abt Associates' National Day Care Study conducted in the 1970s. However, this number averaged as high as 25 in Milwaukee's locally initiated prekindergarten programs and 20 in some programs elsewhere. Compensatory prekindergartens averaged 12 children per adult; state and local prekindergartens, 10 children per adult; public-school-operated Head Start programs, 10 children per adult; and special education prekindergartens, 7 children per adult. By contrast, the number of children per adult averaged 25 for regular kindergarten programs, with the highest school district average being 30.

Young Children and Urban Schools

Introduction

The Council of the Great City Schools represents 38 large-city school districts. The combined population of these districts, 32.3 million, equals that of California and Massachusetts together. During the 1985–86 school year, these districts spent nearly $20 billion to educate 4.5 million children, one ninth of all U.S. children. They served nearly one third of the nation's black and Hispanic children and one fifth of its poor children.[1]

In the past few years, the Council has joined other U.S. policymakers and educators in a renewed interest in early childhood programs. One cause of this attention is the growing need for child care: The percentage of employed mothers of children under age 6, which was 14% in 1950, grew to 49% by 1987.[2] Another cause is the need to combat the harmful consequences of early childhood poverty: The national poverty rate for children under age 6, which was only 15% in 1969, had increased to 23% by 1985. In the nation's central cities in 1985, one out of three children under age 6 was living in poverty.[3]

During the 1985–86 school year, the High/Scope Educational Research Foundation joined with the Council of the Great City Schools to conduct a survey of the early childhood programs that these districts operate. The survey was based on a questionnaire that requested the following information about kindergarten and prekindergarten programs, including infant-toddler care and child care, for the 1985–86 school year: program head-counts by type, children's entry age, and length of program day; average adult-child ratios per classroom; entry criteria, certification, and salaries of teachers; and funding sources. We also asked each respondent to estimate the prospects for new public funds for local prekindergarten programs and requested recent reports of the district's early childhood programs.

The survey did not collect information on the important dimension of early childhood curriculum. There is widespread concern among early childhood educators that young children in public schools may be subjected to too much academic pressure and that they may be required to passively receive direct instruction rather than to initiate their own learning activities.[4] However, survey respondents did not have statistical information available on the extent of these practices in the prekindergarten programs of their districts.

Of the 38 school districts in the Council of the Great City Schools, 28 responded to the questionnaire, which is a response rate of 74%. This report of the survey's findings represents the following districts:

Albuquerque, NM
Atlanta, GA
Buffalo, NY
Chicago, IL
Cleveland, OH
Columbus, OH
Dade County, FL
Dallas, TX
Detroit, MI
Indianapolis, IN
Long Beach, CA
Los Angeles, CA
Memphis, TN
Milwaukee, WI
Minneapolis, MN
Nashville, TN
New York, NY
Norfolk, VA
Omaha, NB
Philadelphia, PA
Pittsburgh, PA
Portland, OR
Rochester, NY
St. Paul, MN
San Francisco, CA
Seattle, WA
Toledo, OH
Washington, DC

The members of the Council of the Great City Schools that did not participate in the survey were these: Baltimore, MD, Boston, MA, Cincinnati, OH, Denver, CO, Fresno, CA, New Orleans, LA, Oakland, CA, San Diego, CA, St. Louis, MO, and Tulsa, OK.

The Scope of Early Childhood Programs in Major Urban School Districts

The enrollment rate of the nation's 3- and 4-year-olds in educational programs has more than tripled in two decades, growing from 11% in 1965 to 39% in 1985. Most of this growth has been in the private sector; while only 11% of kindergarten to twelfth-grade students in 1985 attended private schools, 66% of prekindergarten enrollees were in private programs.[5]

The 28 participating large-city school districts enrolled 69,964 children in prekindergarten programs during the 1985–86 school year, as shown in Table 1. (Prekindergarten programs are defined here as infant-toddler care and child care programs as well as exclusively educational programs for 3- and 4-year-olds.) By comparison, these districts enrolled 305,885 kindergartners and 328,009 first-graders. Chicago and Los Angeles served over 10,000 prekindergarten children each, together enrolling over one third of the prekindergarten children counted in this survey. New York City, Philadelphia, and Detroit each enrolled between 5,000 and 10,000 prekindergarten children. Together, these 5 districts served 62% of the prekindergarten children enrolled in these 28 school districts.

Overall, the number enrolled in prekindergarten was 23% of the number enrolled in kindergarten. This comparison is currently the best way to estimate the comprehensiveness of prekindergarten enrollment, because the stronger comparison, prekindergarten enrollment as a percentage of total prekindergarten population, would depend on outdated statistics from the national decennial census of 1979. Buffalo, Washington, DC, and Milwaukee had the most comprehensive prekindergarten enrollment, serving over half as many children in prekindergarten as in kindergarten. Note that this statistic pertains only to enrollment in public-school prekindergarten programs and does not include the sizeable number of children enrolled in prekindergarten programs in non-public-school community agencies, private agencies, and homes.

Table 1

1985–86 PREKINDERGARTEN,[a] KINDERGARTEN, AND GRADE-1 ENROLLMENT

School District	Enrollment			Comparative Enrollment	
	Pre-K	K	Gr. 1	Pre-K as % of K	K as % of Gr. 1
Albuquerque, NM	90	6,533	6,722	1%	97%
Atlanta, GA	1,290	6,272	6,540	21	96
Buffalo, NY	2,446	3,466	3,505	71	99
Chicago, IL	13,178	34,040	37,764	39	90
Cleveland, OH	1,475	6,722	6,838	22	98
Columbus, OH	23	5,934	6,278	0	95
Dade County, FL	1,430	16,507	18,702	9	88
Dallas, TX	2,404	10,236	11,000	23	93
Detroit, MI	5,579	13,172	14,560	42	90
Indianapolis, IN	0	4,606	4,885	0	94
Long Beach, CA	1,063	5,731	5,349	19	107
Los Angeles, CA	10,882	48,032	49,620	23	97
Memphis, TN	0	8,834	7,000	0	126
Milwaukee, WI	4,327	8,629	8,493	50	102
Minneapolis, MN	250	3,397	3,736	8	91
Nashville, TN	151	5,683	6,246	3	91
New York, NY	7,328	62,739	73,379	12	85
Norfolk, VA	566	3,623	3,699	16	98
Omaha, NB	333	4,362	3,487	7	125
Philadelphia, PA	6,067	14,546	16,227	42	90
Pittsburgh, PA	1,013	4,547	3,411	22	133
Portland, OR	1,374	3,880	4,530	35	86
Rochester, NY	657	2,488	3,085	26	81
St. Paul, MN	437	2,964	2,628	15	113
San Francisco, CA	2,273	5,024	5,102	45	98
Seattle, WA	828	3,797	3,682	22	103
Toledo, OH	603	3,519	3,701	17	95
Washington, DC	3,897	6,602	7,840	59	84
Overall	**69,964**	**305,885**	**328,009**	**23%**	**93%**

Note. Totals vary across tables because of missing data.

[a]Prekindergarten includes all care and education programs for children prior to kindergarten.

Over all 28 school districts, kindergarten enrollment was 93% of first-grade enrollment. This rate was lower than 90% in only five districts — Dade County, New York City, Portland, Rochester, and Washington, DC — while it was above 100% in seven districts, with a high of 133% in Pittsburgh. In some districts, kindergarten enrollment traditionally exceeds first-grade enrollment because some private schools do not offer kindergarten but begin with first grade.

Besides enrollment comparisons, another way to assess the comprehensiveness of early childhood programs in districts surveyed is by comparing their 1985–86 budgets with budgets of kindergarten programs, as shown in Table 2 for 23 districts responding. The overall prekindergarten budget of $136 million was 39% of the kindergarten budget of $344 million. Prekindergarten budgets varied greatly from district to district, ranging from less than 10% of kindergarten spending in Albuquerque, Indianapolis, and Long Beach to more than 100% of kindergarten spending in Buffalo, Philadelphia, and Rochester.

Table 2

1985–86 PREKINDERGARTEN AND KINDERGARTEN BUDGETS

School District	Pre-K	K	Pre-K as % of K
Albuquerque, NM	$ 208,191	$ 6,385,230	3%
Atlanta, GA	3,730,650	11,890,960	31
Buffalo, NY	3,751,592	3,011,645	125
Chicago, IL	20,120,218	36,620,477	55
Cleveland, OH	2,373,000	7,678,000	31
Dade County, FL	5,582,548	45,347,851	12
Dallas, TX	3,091,200	21,760,000	14
Detroit, MI	8,238,391	13,001,095	63
Indianapolis, IN	0	2,983,789	0
Long Beach, CA	739,433	10,177,655	7
Los Angeles, CA	23,350,782	126,285,608	18
Milwaukee, WI	7,943,600	13,894,108	57
Minneapolis, MN	422,704	3,429,512	12
Norfolk, VA	1,677,095	4,388,911	38
Omaha, NB	2,084,235	4,840,832	43
Philadelphia, PA	22,370,880	13,354,020	168
Pittsburgh, PA	3,040,640	4,972,540	61
Rochester, NY	1,849,511	1,627,573	114
St. Paul, MN	1,503,325	—	—
San Francisco, CA	12,356,000	—	—
Seattle, WA	2,092,558	3,559,000	59
Toledo, OH	921,500	—	—
Washington, DC	8,076,521	8,621,495	94
Overall	**$135,524,574**	**$343,830,301**	**39%**

Note. Totals vary across tables because of missing data.

Compared to the 23 districts' overall K–12 per-grade budget of $848 million,[6] the overall prekindergarten budget was 16% as great and the overall kindergarten budget, 41% as great. The overall cost per prekindergartner enrolled was $2,248 and the overall cost per kindergartner enrolled was $1,571, as calculated from Tables 1 and 2. Compared to the districts' overall cost per K–12 student of $3,906,[7] the cost per prekindergartner was 58% as great and the cost per kindergartner, 40% as great. It is not surprising that the per-child prekindergarten cost is more than the per-child kindergarten cost, since younger children need more adult attention and most of the children enrolled in these prekindergarten programs have some sort of special need. Surprisingly, the average cost of a kindergarten enrollment, with half of the kindergartens operating for the full school day, is only two fifths of the average cost of a year of K–12 school enrollment.

Types of Prekindergarten Programs

Entry ages of children in prekindergarten programs varied from infancy to age 4. As shown in Table 3, two thirds of the children were enrolled in prekindergarten programs with age-4 entry; nearly one fourth, in programs with age-3 entry; and one tenth, in programs with entry age between birth and age 2. As young children approach kindergarten age, major urban school districts have more programs for them.

As shown in Table 4, the federally originated Head Start and Chapter 1 compensatory education programs served only 29% of public school prekindergarten enrollees in 1985–86. Only one third of the districts in our survey

Table 3

1985–86 ENROLLMENT IN PREKINDERGARTEN PROGRAMS CLASSIFIED BY ENTRY AGE

School District	Programs, Total	Programs, Ages-0–2 Entry	Programs, Age-3 Entry	Programs, Age-4 Entry
Albuquerque, NM	90	—	—	90
Atlanta, GA	1,290	—	1,290	—
Buffalo, NY	2,446	—	60	2,386
Chicago, IL	12,550	200	4,000	8,350
Cleveland, OH	1,474	72	—	1,402
Columbus, OH	23	—	14	9
Dade County, FL	1,430	100	600	730
Dallas, TX	2,404	304	150	1,950
Detroit, MI	5,579	274	760	4,545
Long Beach, CA	1,063	562	201	300
Los Angeles, CA	10,882	4,596[a]	386	5,900
Milwaukee, WI	4,327	110	365	3,852
Minneapolis, MN	250	—	—	250
Nashville, TN	151	—	3	148
New York, NY	7,034	862	178	5,994
Norfolk, VA	526	26	42	458
Omaha, NB	333	23	106	204
Philadelphia, PA	6,067	—	6,067	—
Pittsburgh, PA	4,135	—	493	3,642[b]
Portland, OR	1,374	102	130	1,142
Rochester, NY	657	—	230	427
St. Paul, MN	417	101	123	193
San Francisco, CA	1,219	—	—	1,219
Seattle, WA	717	—	73	644
Toledo, OH	603	245	321	37
Washington, DC	3,897	—	588	3,309
Total enrollment	**70,938**	**7,577**	**16,180**	**47,181**
% of total	**100%**	**11%**	**23%**	**66%**

Note. Totals vary across tables because of missing data.

[a]Includes 4,500 children 2 to 4 years old in child development preschool centers.

[b]Children enrolled in kindergarten programs with age-4 entry.

offered Head Start programs. This is not surprising, since only one fifth of the nation's Head Start programs (which in 1985–86 served 452,300 children) were sponsored by public schools.[8] Furthermore, public schools have not spent a very large percentage of their federal Chapter 1 funds on pre-first-grade programs. Of the 4.9 million students enrolled in Chapter 1 programs in 1984–85, fewer than 1% were in prekindergarten programs, and only 6% were in kindergarten programs.[9] In 1987, the U.S. House of Representatives approved, and the U.S. Senate was considering, a proposal to authorize $50 million in Chapter 1 funds for Project Even Start, which would provide prekindergarten programs for 1- to 7-year-olds eligible for Chapter 1 and literacy training for their parents.

Table 4 shows that only 10% of the prekindergarten children served by the 28 school districts were enrolled in special education programs. The implementation of the amended Education of the Handicapped Act (HB 5520) by 1991, however, is predicted to increase the number of handicapped young children participating in special education programs, since the bill gives strong incentives to the states to serve 3- to 5-year-old handicappped children and to create programs for handicapped infants. At the time of this survey, states were required to serve handicapped 3- to 5-year-olds only if they provided public preschool education for all.

Table 4

1985–86 PREKINDERGARTEN ENROLLMENT BY PROGRAM TYPE

School District	Total	Head Start[a]	Compensatory	Special Education	State/ Local	Specially Identified[b]
Albuquerque, NM	90	—	90	—	—	—
Atlanta, GA	1,290	—	—	—	1,290	—
Buffalo, NY	2,446	—	329	—	600	1,517
Chicago, IL	13,178	5,079	3,567	1,352	2,550	630
Cleveland, OH	1,475	—	1,330	72	—	73
Columbus, OH	23	—	—	23	—	—
Dade County, FL	830	—	—	400	100	330
Dallas, TX	2,404	—	—	150	1,800	454
Detroit, MI	5,579	2,500	1,280	713	—	1,086
Indianapolis, IN	—	—	—	—	—	—
Long Beach, CA	1,063	51	—	98	352	562
Los Angeles, CA	10,882	—	—	513	673	9,696
Memphis, TN	—	—	—	—	—	—
Milwaukee, WI	4,309	561	360	640	2,742	6
Minneapolis, MN	250	—	—	250	—	—
Nashville, TN	151	—	—	120	—	31
New York, NY	7,328	—	570	969	4,927[c]	862
Norfolk, VA	566	—	371	128	—	67
Omaha, NB	310	—	—	310	—	—
Philadelphia, PA	6,067	1,663	49	—	3,759	596
Pittsburgh, PA	1,013	646	—	108	259	—
Portland, OR	1,374	305	121	89	716	143
Rochester, NY	657	—	—	129	150	378
St. Paul, MN	437	—	—	417	—	20
San Francisco, CA	2,273	—	380	—	839	1,054
Seattle, WA	828	355	—	233	240	—
Toledo, OH	603	—	—	185	101	317
Washington, DC	3,897	483	—	105	3,309	—
Total enrollment	**69,323**	**11,643**	**8,447**	**7,004**	**24,307**	**17,822**
% of total	**100%**	**17%**	**12%**	**10%**	**35%**	**26%**

Note. Totals vary across tables because of missing data.

[a]School-district-sponsored Head Start only.

[b]See Table 5 for description of specially identified programs.

[c]4,633 children state-funded, 294 district-funded.

Table 5 reveals that prekindergarten programs specially identified by school districts served bilingual children, gifted children, and handicapped children who were under age 3 or homebound; they also provided child care for vocational students and adolescent mothers. In this category, the programs identified as solely educational typically had entry ages of 3 or 4 years, and those identified as child care had entry ages from birth to 4 years. Most of the programs reported having entry criteria, such as agency referrals, child performance on a screening test, family income, racial balance, and low birth weight. Some programs required parents to provide transportation or participate in the child's program. It appears that Philadelphia was the only school district surveyed that had district-wide programs with no specific entry criteria.

Table 5

1985–86 ENROLLMENT IN SPECIALLY IDENTIFIED PREKINDERGARTEN PROGRAMS[a]

School District	Program Type	Entry Age[b]	Criteria[c]
Buffalo, NY	Full Day Prekindergarten	3.9	R
	Magnet Prekindergarten	3-4	R
Chicago, IL	Bilingual Preschool	3-4	
	Magnet Preschool	4	R
Cleveland, OH	Vocational Child Care	0-4	E
Columbus, OH	Summer Buildup for K	5	S
Dade County, FL	Day Care Title XX	0-5	I
	Homebound	0-5	A,S
Dallas, TX	Infant Research Project	0-1	B,E,I
	Special Education	0-3	S
	Teen Mothers Child Care	0-5	B,E,I
	Vocational Education Child Care	4	I
Detroit, MI	Bilingual	4	
	Millage Priority	4	S
	Preprimary Hearing Impaired	3.8	S
Long Beach CA	Nursery	3-5	I
Los Angeles, CA	Child Development Children's Center	2-5	A,I
	Preschool Incentive Partnership	3	I,S
	School Age Parenting	0-2	E
	School Readiness Language Development	3.9-4.9	S
Milwaukee, WI	Home-based Special Education	0-3	S
Nashville, TN	Gifted	4	
New York, NY	LYFE	.2-5	E,I
Norfolk, VA	Infant Care for Teen Mothers	0-2	E,P
	Vocational School Nursery	4	T
Philadelphia, PA	Comprehensive Day Care	0-5	
	Early Childhood Prekindergarten	2.7-K	
	Parent Cooperative Nursery	3.7	P
Portland, OR	Infant-Toddler (Disabled)	2-3	
	Nursery Schools[d]	3-5	
Rochester, NY	Preschool-Parent Program	2.7-3.7	P
St. Paul, MN	Central Day Care Center	0-5	
San Francisco, CA	Children's Centers	0-4.9	I,S
Toledo, OH	Family Life Parent-Infant Enrichment	0-3	A,S
	Family Oriented Structured Preschool	4	P
	Preschool Center	3-5	

[a]Programs listed in the last column of Table 4.

[b]3.9 means 3 years 9 months of age.

[c]A = agency referral
B = low birth weight
E = parent in school or vocational program
I = income test
P = parent participation required
R = racial balance
S = child screening procedure used
T = parent must provide transportation

[d]Staffed by high school students.

Prekindergarten Funding

Table 6 lists the school districts' 1985–86 prekindergarten budgets by program category, and Table 7 lists them by governmental source. State, local, and specially identified programs accounted for 56% of the prekindergarten dollars. Public-school-operated Head Start was the next largest, accounting for one fifth of available prekindergarten dollars, nearly as much as the combined funding for compensatory and special education. Federal, state, and local moneys played remarkably equal roles in funding prekindergarten programs — $49 million was federal, $48 million was state, and $39 million was local money. However, 9 of the 22 reporting districts did not tap all available levels of government for prekindergarten funds.

Table 6

1985–86 PREKINDERGARTEN BUDGET BY PROGRAM TYPE

School District[a]	Head Start	Compensatory	Special Education	State/Local	Specially Identified
Albuquerque, NM	$ 0	$ 208,191	$ 0	$ 0	$ 0
Atlanta, GA	0	0	0	3,730,650	0
Buffalo, NY	0	517,186	0	1,684,066	1,550,340
Chicago, IL	8,377,118	5,928,723	0	5,136,736	677,641
Cleveland, OH	0	1,500,000	216,000	0	657,000
Dade County, FL	0	0	2,861,200	250,000	2,471,348
Dallas, TX	0	0	0	2,880,000	211,200
Detroit, MI	3,356,113	2,657,524	222,095	0	2,002,659
Long Beach, CA	143,468	—	0	595,965	0
Los Angeles, CA	0	0	4,206,600	965,082	18,179,100
Milwaukee, WI	1,234,200	486,000	1,472,000	4,661,400[b]	90,000
Minneapolis, MN	0	0	422,704	0	0
Norfolk, VA	0	522,641	1,144,080	0	10,374
Omaha, NB	0	0	2,084,235	0	0
Philadelphia, PA	10,338,100	112,880	0	0	11,919,900
Pittsburgh, PA	1,583,977	0	819,998	636,665	0
Rochester, NY	0	0	1,266,011	411,000	172,500
St. Paul, MN	0	0	1,361,025	142,300	0
San Francisco, CA	0	900,000	0	5,103,000	6,353,000
Seattle, WA	871,078	0	859,800	361,680[b]	0
Toledo, OH	0	0	692,000	75,000	154,500
Total	**$25,904,054**	**$12,833,145**	**$17,627,748**	**$26,633,544**	**$44,449,562**
Distribution	**20%**	**10%**	**14%**	**21%**	**35%**
In-kind contributions					
Chicago, IL	$ 6,559,479	$ 2,979,479	$ 1,489,738	$ 2,090,262	$ 0
Pittsburgh, PA	280,000	0	280,000	0	0
Total	**$ 6,839,479**	**$ 2,979,479**	**$ 1,769,738**	**$ 2,090,262**	**$ 0**

Note. Totals vary across tables because of missing data.

[a]Washington, DC, did not respond to this item.

[b]Locally initiated program.

Length of Program Day

Early childhood programs vary in daily duration. The survey included part-day (2–3 hours), school-day (5–6 hours), and work-day (8–9 hours) programs. Only work-day programs fully meet the child care needs of most parents employed full-time. On the other hand, the historical justification for part-day programs is that they avoid fatiguing young children. School-day programs are a compromise between these two needs, one that also makes it possible to use school buses for young children.

Seventy-one percent of the prekindergartners enrolled in the districts surveyed were in part-day programs, as listed in Table 8, with the rest of the children almost evenly divided between school-day and work-day programs. Atlanta, Long Beach, Los Angeles, Philadelphia, and Seattle provided work-day programs for a substantial percentage of their prekindergarten enrollment, but 21 of the 28 districts offered no such programs.

Kindergarten programs were evenly divided between part-day and school-day programs. As shown in Table 9, no kindergarten programs were provided for the work-day, but four fifths of the districts permitted after-school child care

Table 7

1985–86 PREKINDERGARTEN FUNDING SOURCES

School District	Total	Federal	State	Local
Albuquerque, NM	$ 208,191	$ 208,191	$ 0	$ 0
Atlanta, GA	3,730,650	0	2,797,988	932,662
Buffalo, NY	3,751,592	517,186	1,684,066	1,550,340
Chicago, IL	20,120,218	14,500,782	5,587,236	32,200
Cleveland, OH	2,373,000	1,500,000	873,000	0
Dade County, FL	5,582,548	320,200	4,110,276	1,152,072
Dallas, TX	3,091,200	211,200	1,440,000	1,440,000
Detroit, MI	8,238,391	6,292,059	146,332	1,800,000
Long Beach, CA	739,433	93,186	614,863	31,384
Los Angeles, CA	23,350,782	0	15,037,182	8,313,600
Milwaukee, WI	7,943,600	1,810,200	0	6,133,400
Minneapolis, MN	422,704	321,921	100,783	0
Norfolk, VA	1,677,095	548,591	204,356	924,148
Omaha, NB	2,084,235	2,084,235	0	0
Philadelphia, PA	22,370,880	15,820,380	0	6,550,500
Pittsburgh, PA	3,040,640	2,037,510	688,342	314,788
Rochester, NY	1,849,511	22,500	1,692,011	135,000
St. Paul, MN	1,503,325	52,800	1,002,058	448,467
San Francisco, CA	12,356,000	1,565,000	10,230,000	561,000
Seattle, WA	2,092,558	725,800	1,005,078[a]	361,680
Toledo, OH	921,500	99,000	591,000	231,500
Washington, DC	8,076,521	0	—	8,076,521
Total	**$135,524,574**	**$48,730,741**	**$47,804,571**	**$38,989,262**
% of total	**100%**	**36%**	**35%**	**29%**
In-kind contributions				
Chicago, IL				$ 6,559,479
Pittsburgh, PA				280,000
Total				**$ 6,839,479**

Note. Totals vary across tables because of missing data.

[a]Includes local dollars not distinguished from state dollars.

programs for elementary-school-aged children. While ten of the districts offered only school-day kindergarten programs, five offered only part-day programs, with seven additional districts enrolling at least 85% of their students part-day.

Of all the kindergartners enrolled in these large-city schools, 86% were in regular programs, 12% were in compensatory programs (including 2% who were in both regular and compensatory), 1% were in special education programs (as compared to 10% of prekindergartners), and 1% were in specially identified kindergarten programs (as compared to 26% of prekindergartners).

Table 8

1985–86 PREKINDERGARTEN ENROLLMENT BY HOURS OF OPERATION

School District	Part-day		School-day		Work-day	
	Number Enrolled	% of Pre-K	Number Enrolled	% of Pre-K	Number Enrolled	% of Pre-K
Albuquerque, NM	90	100	—	—	—	—
Atlanta, GA	—	—	—	—	1,290	100
Buffalo, NY	1,476	60	970	40	—	—
Chicago, IL	12,995	99	183	1	—	—
Cleveland, OH	1,402	96	73	4	—	—
Columbus, OH	23	100	—	—	—	—
Dade County, FL	130	14	500	54	300	32
Dallas, TX	1,600	80	240	12	150	8
Detroit, MI	5,014	89	565	11	—	—
Long Beach, CA	501	47	30	3	532	50
Los Angeles, CA	5,473	50	829	8	4,580	42
Milwaukee, WI	4,327	100	—	—	—	—
Minneapolis, MN	—	—	250	100	—	—
Nashville, TN	31	21	120	79	—	—
New York, NY	6,185	96	203	3	78	1
Norfolk, VA	526	100	—	—	—	—
Omaha, NB	310	100	—	—	—	—
Philadelphia, PA	463	8	1,845	30	3,759	62
Pittsburgh, PA	754	74	259	26	—	—
Portland, OR	1,374	100	—	—	—	—
Rochester, NY	578	88	78	12	—	—
St. Paul, MN	408	98	9	2	—	—
San Francisco, CA	1,219	100	—	—	—	—
Seattle, WA	473	57	—	—	355	43
Toledo, OH	603	100	—	—	—	—
Washington, DC	1,578	40	2,319	60	—	—
Overall	**47,533**	**71**	**8,473**	**13**	**11,044**	**16**

Note. Totals vary across tables because of missing data.

Policies Affecting Program Quality

Policies concerning teacher qualifications and the adult-child ratio are the most important ones affecting the quality and cost of prekindergarten programs. In this survey, every school district with prekindergarten programs required some type of certification for the teachers of these programs. Table 10 shows that 25 of the 26 districts required *teacher* certification; Atlanta, however, required only *paraprofessional* certification. For some or all prekindergarten programs, nine districts required certification in early childhood education; seven, in early childhood and elementary education; and six, in elementary education only. Five districts serving prekindergartners with special needs required special education certification, and one — St. Paul — required certification in early childhood special education. California school districts required that staff in child care programs have the state's two-year, renewable child care permit. Teacher certification went hand in hand with professional teacher salaries: Except for Atlanta, Long Beach, Pittsburgh, and some Los Angeles programs, districts paid their prekindergarten teachers on the same salary schedule as their elementary-school teachers.

Table 9

1985–86 KINDERGARTEN ENROLLMENT BY HOURS OF OPERATION

School District[a]	Part-day		School-day	
	Number Enrolled	% of K	Number Enrolled	% of K
*Albuquerque, NM	6,533	100	—	—
*Atlanta, GA	—	—	6,272	100
Buffalo, NY	766	22	2,700	78
Chicago, IL	24,003	71	10,037	29
Cleveland, OH	4,899	73	1,823	27
*Columbus, OH	5,278	89	656	11
*Dade County, FL	—	—	16,500[b]	100
Dallas, TX	—	—	10,236	100
*Detroit, MI	10,672	81	2,500	19
*Indianapolis, IN	4,407	96	199	4
*Long Beach, CA	—	—	5,731	100
*Los Angeles, CA	48,032	100	—	—
Memphis, TN	—	—	8,834	100
*Milwaukee, WI	8,184	94	545	6
*Minneapolis, MN	3,397	100	—	—
*Nashville, TN	—	—	5,683	100
*New York, NY	—	—	62,739	100
Norfolk, VA	—	—	3,623	100
*Omaha, NB	4,127	95	235	5
*Philadelphia, PA	13,546	93	1,000	7
*Pittsburgh, PA	3,467	76	1,080	24
*Portland, OR	3,058	79	822	21
*Rochester, NY	2,257	91	231	9
St. Paul, MN	2,964	100	—	—
*San Francisco, CA	—	—	5,024	100
*Seattle, WA	3,235	85	561	15
*Toledo, OH	3,519	100	—	—
*Washington, DC	—	—	6,602	100
Overall	**152,324**	**50**	**153,633**	**50**

Note. Totals vary across tables because of missing data.

[a]Districts with an asterisk permitted after-school child care programs.

[b]Included 24 children enroiled in work-day Title XX day care kindergarten.

Over the 25 districts reporting prekindergarten programs, the average number of prekindergarten children per adult was 10, the maximum recommended by the National Day Care Study.[10] About four fifths of the district program averages listed in Tables 11 and 12 fell within this recommended limit, while about one fifth exceeded it. Comparing program types across districts, the largest average number of children per adult was found in Chapter 1-funded compensatory education programs (12), while the smallest (7) was found in special education programs. The highest district program average was 25 children per adult in Milwaukee's locally funded prekindergarten programs, followed by 20 children per adult in the public-school-operated Head Start programs in Washington, DC, in the Chapter 1 programs in Cleveland and Milwaukee, and in the state program in Seattle. While it may be tempting to administrators to increase limited prekindergarten program coverage by serving more children without increasing the number of adults, this policy is shortsighted if the immediate monetary savings are at the expense of program quality, thus diminishing the potential long-term benefits described later in this paper.

Table 10

1985–86 PREKINDERGARTEN TEACHER POLICIES

School District	Is teacher certification required?	What type of certification?[a]	Is pre-K staff on elementary-school salary schedule?
Albuquerque, NM	yes	EC	yes
Atlanta, GA	no	EC (CDA)	no
Buffalo, NY	yes	EL/EC	yes
Chicago, IL	yes	EC (for Head Start)	yes
Cleveland, OH	yes	EL/EC	yes
Columbus, OH	yes	SP	yes
Dade County, FL	yes	EL/EC	yes
Dallas, TX	yes	EC	yes
Detroit, MI	yes	EC	yes
Long Beach, CA	yes	CC	no
Los Angeles, CA	yes	EC, CC	varies
Memphis, TN	yes	EL/EC	yes
Milwaukee, WI	yes	EL	yes
Minneapolis, MN	yes	SP	yes
New York NY	yes	EC	yes
Norfolk, VA	yes	EL (for Chapter 1), SP	yes
Omaha, NB	yes	EL, EC, SP	yes
Philadelphia, PA	yes	EL/EC	yes
Pittsburgh, PA	yes	EL/EC	no
Portland, OR	yes	EL	yes
Rochester, NY	yes	EL/EC	yes
San Francisco, CA	yes	EC, CC	yes
St. Paul, MN	yes	ECSP	yes
Seattle, WA	yes	EL	yes
Toledo, OH	yes	SP	yes
Washington, DC	yes	EL	yes

[a]Certification awarded by state except in the cases of New York (school district) and Atlanta (federal Child Development Associate credential). Certifications are as follows:

EC = early childhood education
EL = elementary education
EL/EC = early childhood and elementary education
SP = special education
ECSP = early childhood special education
CC = child care (two-year permit in California)

Tables 11 and 12 portray the close inverse relationship between the average adult-child ratio and the program cost per child. (The Pearson product-moment correlation between these variables is $-.38$.) The strength of this relationship is partly due to the fact that most prekindergarten teachers were paid on the elementary-school-teacher salary schedule. Special education programs, averaging $4,316 per child, were the most expensive prekindergarten programs, with an average of only 7 children per adult. (Recall that the average cost per student in these school districts was $3,906.) Public-school-operated Head Start had the next highest average cost, $2,732 per child, and an average of 9 children per adult. On the average, state and local programs cost $2,498 per child, with 11 children per adult. It is not surprising that the least expensive program type, Chapter 1 (average cost of $1,798 per child), had the greatest average number of children per adult (12).

Looking at specific school districts in Tables 11 and 12, we see that the most expensive prekindergarten programs were special education programs, whose average cost per child exceeded $6,500 in seven school districts and reached $15,000 per child for the Home-Based Special Education program in Mil-

Table 11

1985–86 COST PER CHILD AND CHILDREN PER ADULT IN TYPES OF PREKINDERGARTEN PROGRAMS

School District	Cost per Child				Children per Adult			
	Head Start	Comp. Ed.	State/ Local	Special Ed.	Head Start	Comp. Ed.	State/ Local	Special Ed.
Albuquerque, NM	$—	$2,313	$—	$—	—	11	—	—
Atlanta, GA	—	—	2,892	—	—	—	15	—
Buffalo, NY	—	1,572	2,807	—	—	9	8	—
Chicago, IL	1,649	1,662	2,014	6,647	5	8	6	5
Cleveland, OH	—	1,128	—	3,000	—	20	—	4
Columbus, OH	—	—	—	—	—	—	—	6
Dade County, FL	—	—	2,500	7,153	—	—	7	7
Dallas, TX	—	—	1,600	—	—	—	11	9
Detroit, MI	1,342	2,076	—	311	10	10	10	6
Long Beach, CA	2,813	—	1,693	—	8	—	8	6
Los Angeles, CA	—	—	1,656	8,200	—	—	8	3
Milwaukee, WI	2,200	1,350	1,700	2,300	8	20	25	3
Minneapolis, MN	—	—	—	1,691	—	—	—	15
Nashville, TN	—	—	—	—	—	—	—	5
New York, NY	—	—	—	—	—	15	18	15
Norfolk, VA	—	1,409	—	8,938	—	8	—	4
Philadelphia, PA	6,217	2,304	—	—	7	10	7	—
Pittsburgh, PA	2,452	—	2,458	7,593	6	—	10	12
Portland, OR	—	—	—	—	7	7	15	—
Rochester, NY	—	—	2,740	9,814	—	—	8	6
St. Paul, MN	—	—	—	3,264	—	—	—	8
San Francisco, CA	—	2,368	6,082	—	—	8	8	—
Seattle, WA	2,454	—	3,583	1,552	13	—	20	6
Toledo, OH	—	—	743	3,741	—	—	5	4
Washington, DC	—	—	—	—	20	—	15	10
Overall	**$2,732**	**$1,798**	**$2,498**	**$4,316**	**9**	**12**	**11**	**7**

waukee. Other expensive programs included Cleveland's Vocational Child Care program ($9,000 per child), Los Angeles's Preschool Incentive Partnership program ($8,200 per child), and Philadelphia's full-school-day Head Start programs ($6,200 per child). The important issue, however, is not the expense of such programs, since equitable education of children with handicapping conditions or other special problems is understandably costly. Rather, it is whether the money is being invested *wisely*, so that programs will produce long-term benefits for children and for taxpayers.

In contrast to the expensive programs, six districts offered prekindergarten programs that cost less than $1,000 per child, including four programs in Toledo and magnet preschools in Buffalo and Chicago. The average number of children per adult in each of these programs did not exceed 11, except in the Buffalo Magnet Prekindergarten program (with 18 children per adult). These less costly programs probably had short hours of operation and/or volunteer help.

Regular kindergartens in the 28 school districts averaged 25 children per adult, as shown in Table 13 — more than double the overall average number of kindergartners per adult served in compensatory or special education or in any type of prekindergarten program across districts. The average number of children per adult in regular kindergarten programs ranged from 20 to 30. The

Table 12

1985–86 COST PER CHILD AND CHILDREN PER ADULT IN SPECIALLY IDENTIFIED PREKINDERGARTEN PROGRAMS

School District	Program	Cost per Child	Children per Adult
Buffalo, NY	Full-Day Prekindergarten	$ 1,191	10
	Magnet Prekindergarten	745	18
Chicago, IL	Bilingual Preschool	1,486	10
	Magnet Preschool	176	11
Cleveland, OH	Vocational Child Care	9,000	3
Dade County, FL	Day Care Title XX	1,089	14
	Homebound 0-2	5,533	1
	Homebound 3-5	—	1
Dallas, TX	Infant Research Project	—	6
	Special Education	—	7
	Teen Mothers' Child Care	—	5
	Vocational Education Child Care	—	10
Detroit, MI	Bilingual	1,308	10
	Millage Priority	1,800	10
	Preprimary Hearing Impaired	5,603	7
Los Angeles, CA	Child Development Children's Center	1,579	8
	Preschool Incentive Partnership	8,200	8
	School Age Parenting	3,125	4
	School Readiness Language Develop.	1,732	8
Milwaukee, WI	Home-Based Special Education	15,000	3
New York, NY	LYFE	—	4
Norfolk, VA	Infant Care for Teen Mothers	—	4
	Vocational School Nursery	384	7
Philadelphia, PA	Comprehensive Day Care	2,904	7
	Early Childhood Prekindergarten	1,718	10
	Parent Cooperative Nursery	1,666	3
Rochester, NY	Preschool-Parent Program	456	5
San Francisco, CA	Children's Centers	6,028	4[a] 8[b]
Toledo, OH	Family Life Parent-Infant Enrichment	451	—
	Family Oriented Structured Preschool	946	10
	Preschool Center	257	6

Note. Not all specially identified programs listed in Table 5 appear here, because of missing data on these items.

[a]Ages 0–3.

[b]Ages 3–5.

average number of children per adult in compensatory and special education kindergartens generally ranged from 3 to 15, yet reached 23 in Milwaukee's compensatory kindergartens.

The average per-child cost of regular kindergartens, at $1,298, was only a third as much as the K–12 per-student cost of $3,906 mentioned earlier. Nine districts operated regular kindergartens, 80% of them being part-day, at a cost of less than $1,000 per child. When teachers teach two part-day programs a day and when class sizes are large, the per-student costs can be kept low. But again, the question is whether the short-term efficiencies of these programs may undermine the long-term investment in children's educational futures.

When a child in regular kindergarten also received compensatory education services, the per-child cost was almost doubled ($1,298 + $1,057), while the child in a designated, self-contained compensatory program cost the school district an average of $3,224. Special education kindergarten programs on the average cost $2,910 per child. The Norfolk programs cost $6,628 per child, with each adult serving four children for the school day.

Table 13

1985–86 COST PER CHILD AND CHILDREN PER ADULT IN KINDERGARTEN PROGRAMS

School District	Cost per Child			Children per Adult		
	Regular	Comp. Ed.[a]	Special Ed.	Regular	Comp. Ed.	Special Ed.
Albuquerque, NM	$ 634	+$2,313	$3,277	21	10	13
Atlanta, GA	1,896	—	—	22	—	—
Buffalo, NY	835	—	3,221	25	—	5
Chicago, IL	835	2,844	—	29	10	5
Cleveland, OH	753	3,974[b]	3,000	27	12	4
Columbus, OH	—	—	—	25	6	5
Dade County, FL	2,576	+1,115	—	27	15	7
Dallas, TX	3,200	—	—	22	12	10
Detroit, MI	726	+1,378	—	28	14	—
Indianapolis, IN	656	—	—	24	—	12
Long Beach, CA	1,646	—	—	30	—	6
Los Angeles, CA	2,380	2,854	—	30	14	10
Memphis, TN	—	—	—	25	—	—
Milwaukee, WI	1,548	+1,350	2,300	25	23	3
Minneapolis, MN	852	+452	3,607	26	5	8
Nashville, TN	—	—	—	—	—	5
New York, NY	—	—	—	25	—	15
Norfolk, VA	1,143	—	6,628	20	—	4
Omaha, NB	1,092	—	1,536[c] 1,664[d]	23	—	13
Philadelphia, PA	1,007	+300	—	30	15	—
Pittsburgh, PA	1,346	+436	2,977	23	10	12
Portland, OR	—	—	—	20	15	—
Rochester, NY	693	—	—	22	—	—
St. Paul, MN	—	+500	1,683	23	3	8
San Francisco, CA	—	—	—	30	—	—
Seattle, WA	847	—	3,284	23	—	6
Toledo, OH	—	+1,667	1,737	26	15	8
Washington, DC	—	—	—	20	—	—
Average	**$1,298**	**$3,224** **+1,057**	**$2,910**	**25**	**12**	**8**

[a]Dollars preceded by plus signs are added costs of compensatory education for children who attended regular kindergarten.

[b]60% of students also are enrolled in regular kindergarten.

[c]Alternative kindergarten.

[d]Pre-first grade.

The Future of Prekindergarten Programs in Urban Schools

As shown in Table 14, in the spring of 1986 the prospects for new **state** funds for prekindergarten programs looked good or very good to respondents in 12 of 28 school districts: Buffalo, Chicago, Dade County, Dallas, Los Angeles, Milwaukee, New York, Norfolk, Pittsburgh, Rochester, Seattle, and Toledo. These districts represent every major region of the United States. Prospects for new **school district** funds for prekindergarten programs were rated as good or very good by respondents in 8 districts, 5 of which had also reported good state prospects. These 5 were Dallas, Los Angeles, New York, Pittsburgh, and Rochester. The others were Norfolk, Portland, and Washington, DC. Prekindergarten **federal** funding prospects were rated as good or very good in 3 districts, as were prospects for **non-district local** funds. Six districts rated prospects from all sources as poor to fair, while 6 others rated them all as poor or very poor.

Expectations for new state and local district prekindergarten funding looked brighter than did expectations for funding from federal sources or local non-district sources. Overall, school-district respondents rated the prospects as fair regarding new funding from their states and districts, and as poor regarding new funding from the federal government and local non-district sources.

Respondents also presented some of their thoughts about planning for early childhood programs in their districts. Six expected growth in state or local-district funding for prekindergarten programs: Atlanta, Chicago, Cleveland, Long Beach, Portland, and Rochester. Two expected growth in specific programs: Los Angeles (in the School Readiness Language Development Program) and Washington, DC (in school-day programs). Six expected no growth in their prekindergarten programs: Albuquerque, Memphis, Milwaukee, Minneapolis, Omaha, and Philadelphia. The San Francisco respondent noted that the prekindergarten funding level in California is decided annually depending on the status of the state budget rather than on the number of eligible children who might enroll.

Columbus and Minneapolis respondents wrote that their districts planned to expand some kindergarten programs to full school-day. The Norfolk respondent mentioned plans to offer an extra year of kindergarten for some children. Albuquerque, Pittsburgh, and Portland respondents had curriculum concerns. Norfolk, Cleveland, and Seattle respondents brought up child care concerns. Dade County, Pittsburgh, and Toledo respondents expressed the need to coordinate the prekindergarten programs offered by various providers and agencies within their cities.

Prekindergarten Program Evaluations

For a prekindergarten program to be educationally worthwhile, it should help at-risk children improve their intellectual and social abilities, their attitudes towards learning, and their subsequent school success. School districts have used records of school success and scores from standardized measures of intellectual skills to evaluate prekindergarten programs for economically disadvantaged children. While the children in such studies are self-selected and probably differ in background characteristics, group comparisons can shed some light on preschool program effectiveness. We summarize here several prekindergarten evaluations that the school districts conducted in 1984 and 1985.

The Portland and Cleveland school districts have both conducted longitudinal studies of children who had attended Chapter 1 prekindergarten programs. Portland's annual follow-ups in recent years have found mixed evidence of program success, both in kindergarten teacher ratings and third-grade achievement test scores.[11] The Cleveland school district found that on reading, language, mathematics, and basic skills achievement tests administered in kindergarten and first grade, children with Chapter 1 prekindergarten experience scored higher than did children with no experience in a prekindergarten program.[12]

Table 14

SPRING 1986 PREKINDERGARTEN PROSPECTS FOR PUBLIC FUNDING[a]

School District	State	District	Federal	Other Local	Mean[b]
Albuquerque, NM	very poor	very poor	very poor	very poor	1.0
Atlanta, GA	very poor	poor	very poor	poor	1.5
Buffalo, NY	very good	fair	fair	poor	3.3
Chicago, IL	very good	fair	fair	poor	3.3
Cleveland, OH	fair	fair	poor	—	2.3
Columbus, OH	poor	very poor	very poor	very poor	2.7
Dade County, FL	good	poor	poor	fair	2.8
Dallas, TX	good	good	fair	fair	3.5
Detroit, MI	fair	fair	fair	fair	3.0
Indianapolis, IN	very poor	very poor	very poor	very poor	1.0
Long Beach, CA	poor	very poor	very poor	very poor	1.3
Los Angeles, CA	good	very good	good	—	4.3
Memphis, TN	poor	poor	fair	poor	2.3
Milwaukee reg.ed.	good	fair	fair	poor	3.0
Milwaukee spec.ed.	very good	fair	very good	poor	3.8
Minneapolis, MN	fair	poor	very poor	good	2.5
Nashville, TN	very poor	very poor	very poor	very poor	1.0
New York, NY	good	good	very poor	good	3.3
Norfolk, VA	good	good	poor	—	3.3
Omaha, NB	very poor	poor	fair	very poor	1.8
Philadelphia, PA	fair	fair	poor	—	2.3
Pittsburgh, PA	good	good	good	—	4.0
Portland, OR	poor	very good	very poor	very poor	2.3
Rochester, NY	good	good	—	—	4.0
St. Paul, MN	poor-fair	fair	poor	fair	2.6
San Francisco, CA	fair	poor	poor	fair	2.5
Seattle, WA	good	poor	fair	—	2.5
Toledo, OH	good	fair	fair	good	3.5
Washington, DC	—	good	fair	—	3.5
Average[b]	**3.1**	**2.8**	**2.3**	**2.2**	**2.7**

[a]The school district staff member completing the questionnaire responded to this question: In your judgment, what are the prospects for new public funds for prekindergarten programs in your area from the following sources?

[b]1 = very poor; 2 = poor; 3 = fair; 4 = good; 5 = very good; dashes ignored.

In Los Angeles, the School Readiness Language Development program is intended to help preschoolers in schools that serve mostly Hispanic, black, Asian, and other non-Anglo students to develop needed communication skills. A mere 0.5% of program graduates were retained in kindergarten from 1979 to 1984, while the district rate, 3.7%, was six times as great. In reading, mathematics, and composition skills, children in grades 1 to 4 who had attended this program performed as well or somewhat better than children with no preschool program experience.[13]

Table 15

1985 COMPARISONS OF THREE SEATTLE GROUPS WITH DIFFERENT PREKINDERGARTEN EXPERIENCES

Characteristic	Head Start (n = 4,189)	CAMPI (n = 2,883)	Control (n = 2,787)	District
1985 Educational Placement				
Left high school	13.5%	11.3%	17.4%*	—
Gifted	2.7	8.0	3.4*	9.0
Age-appropriate grade or above	71.6	80.5	70.1	78.6
In special education	16.7	13.5	13.5	8.9
Background				
Low-income (eligible for free/reduced-price lunch)	73.3%	57.9%	64.6%*	41.3%
Living with both parents	30.2	41.0	41.9*	55.1
Minority	78.0	95.0	74.4*	49.6

Note. Summarized from George Sanders and Diane Haynes, *A Preliminary Study of Students in Head Start, CAMPI Satellite Preschools, and a Comparison Group*, Report No. 85-2 (Seattle: Seattle Public Schools, 1985). Entries are averages for classes in grades 1 to 11 (K to 11 for "living with both parents" and "minority," 9 to 11 for "left high school").

*$p < .05$ for group differences at seven or more grade levels (district entries excluded); for "left high school," $p < .05$ for average group difference.

In 1984 Philadephia examined the achievement test scores of students in kindergarten through grade 9 to identify the effects of its Get Set Day Care project. Get Set was the city's original Head Start project and is now a Comprehensive Day Care (Title XX) program providing full-work-day care to prekindergarten children of low-income families. In reading and mathematics achievement tests, students who had received Get Set child care scored as well as or better than average when compared to

- K–3 students nationwide (except for grade-3 reading)
- K–7 students district-wide, though district children had a higher average socioeconomic level (except for grade-5 reading and mathematics)
- other K–9 students in their neighborhoods (except for grade-5 mathematics)

On reading and mathematics achievement tests, students living in poverty who had received the district's current Head Start program services (not part of Get Set) scored as well as or better than average when compared to

- K–3 students nationwide (except for grade-3 reading)
- K–9 students from other neighborhoods with Head Start programs (except for reading in grades 7 and 9)[14]

Economically disadvantaged children who had experienced Seattle's CAMPI Satellite Preschool program achieved better educational placements than a comparable control group. As shown in Table 15, only 11% of these youngsters left high school before graduation, which is a dropout rate two thirds the size of the control group's 17% dropout rate. Although the CAMPI group and the control group had the same rate of special education placement, the CAMPI

group had more than twice the percentage of students in gifted education and a rate of placement at or above the age-appropriate grade that was 10 percentage points higher than that of the control group.[15]

In the same study, the Seattle Head Start data in Table 15 demonstrates the importance of caution in making comparisons in longitudinal evaluations. The background comparisons indicate that greater percentages of Head Start students came from poor and single-parent families. Thus, to perform as well as the control group, Head Start students had to overcome extra demographic disadvantages. In fact, Head Start students performed comparably to the control group on staying in high school, being in gifted classes, and being at or above age-appropriate grade placement; however, they were more likely to be placed in special education than were the control group members.

In summary, children who had attended Chapter 1 prekindergarten programs in Portland and Cleveland and the School Readiness Language Development program in Los Angeles had slightly higher achievement test scores than did the controls in their early elementary school years. Children who participated in the Los Angeles program had a lower rate of kindergarten retention than did district children as a whole. Children who attended Philadelphia's Get Set Day Care and Head Start programs did as well or better than their peers in school achievement through grade 9. Children who attended the CAMPI Satellite Preschool program in Seattle, as compared to a control group, had a lower high school dropout rate and higher rates of placement in the age-appropriate grade and in gifted education.

In our opinion, prekindergarten program evaluations are most convincing when they are **experimentally designed,** with program participation determined by objective criteria set by the evaluator. Parents who choose to enroll their children in a program are definitely different from those who do not; these differences can either magnify or mask real program effects. One way to achieve the desired experimental design is to select both program participants and control-group members at random from a waiting list, a technique now being used successfully by numerous researchers, including Jean Larsen and her associates at Brigham Young University.

Evaluations should assess the **curriculum style** of prekindergarten programs — the developmental appropriateness of the classroom activities initiated by the teachers and the frequency of children's opportunities to initiate their own classroom activities. The first question is whether curriculum objectives are developmentally appropriate. The second concerns the degree to which classroom practices reflect these developmentally appropriate curriculum objectives.

While some of the evaluations reviewed here considered a **variety of potential outcomes,** others were exclusively focused on tests of academic achievement. The well-designed studies on the effects of prekindergarten programs reviewed in the next section presented little evidence of improvements on academic achievement tests in the elementary school years but presented much evidence of other improvements in children's intellectual and social abilities, dispositions towards learning and other people, and subsequent school success. Classroom observations, teacher ratings, tests of intellectual potential (rather than achievement tests), and recorded placement decisions have been and should be used to measure these factors.

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The Potential of Good Early Childhood Programs

The High/Scope Foundation's Perry Preschool study strikingly demonstrates the potential benefits of good prekindergarten programs for children at risk. In the study, poor 3- and 4-year-olds were randomly assigned either to a group that attended the Perry Preschool program or to a group that did not, so that later group differences could safely be considered effects of the preschool program. Thus, an assessment of the two groups at age 19 indicated that the preschool program apparently increased the percentage of persons who, at age 19, were

- literate, from 38% to 61%
- enrolled in postsecondary education, from 21% to 38%
- employed, from 32% to 50%

The program apparently reduced the percentage of persons who, at age 19,

- had been arrested for delinquency, from 51% to 31%.
- had been treated for mental retardation, from 35% to 15%
- were school dropouts, from 51% to 33%
- had been pregnant teens, from 67% to 48%
- were on welfare, from 32% to 18%[16]

An economic benefit-cost analysis of the Perry Preschool Program and its long-term effects revealed that such a program can be an excellent investment for taxpayers, returning six dollars for every dollar invested in a one-year program and three dollars for every dollar invested in a two-year program.[17] The research and policy group of the Committee for Economic Development, an organization of business and education leaders, reviewed these results and called the program "an extraordinary economic buy." They went on, "It would be hard to imagine that society could find a higher yield for a dollar of investment than that found in preschool programs for its at-risk children."[18]

Other research on good early childhood programs for poor children confirms that such programs have positive results immediately afterwards, several years later, and even a decade and more later. The evidence is that these programs *do* help improve children's intellectual and social performance as they begin school,[19] *probably* help children achieve greater school success,[20] and, as just described, *can* help young people achieve greater socioeconomic success and social responsibility.

The nation's major cities face enormous social problems of school failure, illiteracy, unemployment, teen pregnancy, drug abuse, and crime or delinquency. High quality prekindergarten programs for poor children are only the

beginning of a solution to these problems. School systems, in fact all levels of government and the private sector, can do much more for at-risk children and youths.[21] However, the issue is not just doing more but doing the right things and doing them well. Providing high quality prekindergarten programs is one of the right things to do.

Footnotes

[1]Council of the Great City Schools, *The condition of education in the Great City Schools: A statistical profile, 1980–1986* (Washington, DC: Author, 1986), pp. 3, 5, 15, 29, 36.

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[3]U.S. Bureau of the Census, *Money income and poverty status of families and persons in the United States*, Series P-60 (Washington, DC: U.S. Government Printing Office, 1969–1986).

[4]Lawrence J. Schweinhart, Child-initiated activity: How important is it in early childhood education?, High/Scope *ReSource*, Spring/Summer 1987 (Ypsilanti, MI: High/Scope Press).

[5]U.S. Bureau of the Census, *School enrollment — Social and economic characteristics of students: October 1985 (advance report)*, Current Population Reports, Series P-20, No. 409 (Washington, DC: U.S. Government Printing Office, 1986).

[6]Council of the Great City Schools, *Condition of education*, p. 36.

[7]Council of the Great City Schools, *Condition of education*, p. 29.

[8]Information obtained from the Administration for Children, Youth, and Families, Office of Human Development Services, U.S. Department of Health and Human Services, May 5, 1987.

[9]Information obtained from the Office of Compensatory Education Programs, U.S. Department of Education, May 5, 1987.

[10]Richard Ruopp, Jeff Travers, F. Glantz, & Craig Coelen, *Children at the center: Summary findings and their implications*, Final Report of the National Day Care Study, Volume 1 (Cambridge, MA: Abt Associates, 1979).

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[14]School District of Philadelphia, *Highlights of early childhood program accomplishments — Preliminary reports: 1983–1984*, Report No. 8513; *Longitudinal analyses: Maintenance of high performance among graduates of prekindergarten programs grade one to grade nine*, Report No. 8603 (Philadelphia: Office of Planning, Research, and Evaluation, Early Childhood Research and Evaluation Unit, 1985).

[15]George Sanders & Diane Haynes, *A preliminary study of students in Head Start, CAMPI Satellite Preschools, and a comparison group*, Report No. 85-2 (Seattle: Seattle Public Schools, 1985).

[16]John R. Berrueta-Clement, Lawrence J. Schweinhart, W. Steven Barnett, Ann S. Epstein, & David P. Weikart, *Changed lives: The effects of the Perry Preschool program on youths through age 19*, Monographs of the High/Scope Educational Research Foundation, 8 (Ypsilanti, MI: High/Scope Press, 1984).

[17]W. Steven Barnett, *The Perry Preschool program and its long-term effects: A benefit-cost analysis*, High/Scope Early Childhood Policy Papers, No. 2 (Ypsilanti, MI: High/Scope Press, 1985).

[18]*Investing in our children* (New York: Research and Policy Committee, Committee for Economic Development, 1985).

[19]Ruth H. McKey, Larry Condelli, Harriet Ganson; Barbara J. Barrett, Catherine McConkey, & Margaret C. Plantz, *The impact of Head Start on children, families and communities*, Final Report of the Head Start Evaluation, Synthesis, and Utilization Project, (Washington, DC: CSR, Inc., 1985).

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